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BRIEFING PAPER

Food security in Africa

Priorities for reducing hunger

By Simon Maxwell

In 1974, the World Food Conference declared the "inalienable right of every man, woman and child to be free from hunger and malnutrition." Yet in 1992, nearly two decades later, more than 20 countries in sub-Saharan Africa face exceptional food emergencies and more than 40 million Africans confront the threat of famine. In some countries — notably Somalia and Mozambique — a deadly mix of drought and war has brought starvation deaths to alarming levels. Even without famine, hunger is widespread: nearly half of sub-Saharan Africa's population suffers from food shortages.

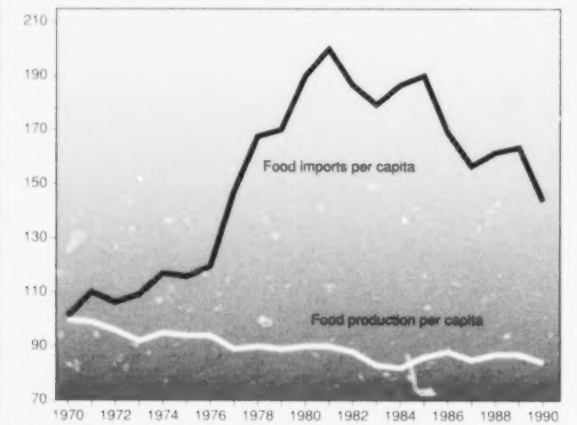
Since the early 1970s, overall food production in Africa has actually increased, at about the same rate as in other regions. Despite this, food production *per head* has fallen, while dependence on food imports and food aid has increased. Undernutrition has risen a little in proportional terms and a great deal in absolute numbers. And the cost and disruption of repeated food crises have come to assume ever-increasing prominence in African policy debate.

The picture is not all gloomy, nor are all the problems of Africa's making. Nevertheless, we need to ask: What has gone wrong? And what now can be done to achieve food security in Africa? These have long been questions of sharp debate among Africans, and between Africa and its international partners. The debate has ranged over issues as diverse as the nature of economic growth, the management of cereal markets, the design of food security safety nets and the role of food aid. Many, especially within Africa, have argued that the foremost priority should be food production, to achieve the greatest possible degree of food self-sufficiency at national level. Others have maintained that many African countries should rather maximize the efficiency and output of their export sectors, and then use the foreign earnings to import more food.

Thinking on food problems has evolved in 20 years and many tenets of previous conventional wisdoms are being challenged. Despite the current famine, there is room for optimism. There is much to do, but Africa and Africans *can* be food secure.

The key is to recognize the complexity of food insecurity and create environments in which food insecure people can achieve secure and sustainable livelihoods. Since war is such an important cause of food insecurity in parts of Africa, the first step is peace. Beyond that, the top priority is economic growth, in a way that specifically increases the incomes and assets of the poorest and most food insecure. These groups are increasingly concentrated among the landless, female-headed households, those in marginal areas and the urban poor. To achieve growth, agriculture must come first. This means improving incentives and resources for farmers, though this does not necessarily mean an exclusive emphasis on food crops: cash crops can sometimes offer a faster route to growth, diversification and employment in Africa.

Africa's import dependence
(Food imports and production per capita. Index: 1969-71=100)



Source: FAO *Trade/Production Yearbooks*, various years

To guard against destitution, the food insecure also need safety nets, preferably embedded in local communities, supported by strong local government and designed to benefit broader development goals. The state has a key role to play, though new approaches to planning suggest a more modest profile than before. More efficient marketing systems, including enhanced

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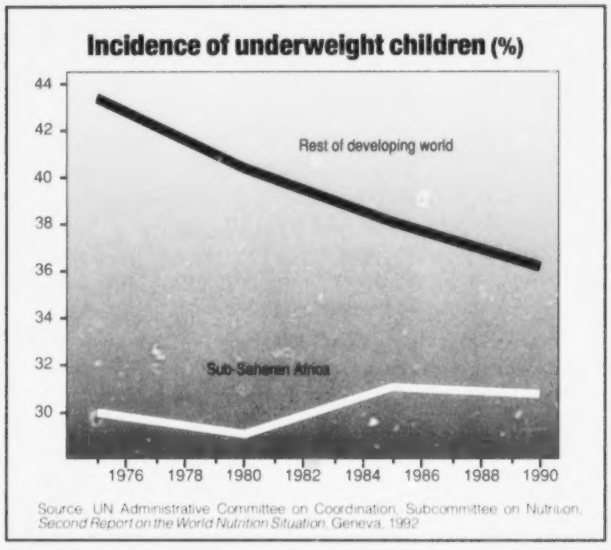
intra-African trade, are crucial to achieving food security.

With the gap between food needs and domestic production expected to widen, Africa will need larger amounts of food aid. But at the same time, food aid will need to be delivered and managed much more efficiently, with greater integration between food aid and financial aid.



Source: UN Administrative Committee on Coordination, Subcommittee on Nutrition, *Second Report on the World Nutrition Situation*, Geneva, 1992

I. What is food insecurity?

If "food security" is the objective, we need to be clear about its meaning — no easy task when the term is subject to constant development and redefinition. Does it refer to nation, community, household or individual? Is it a measure of the ability to acquire food, or of the amount and kind of food actually consumed? Does it refer to access in the present or in the future? Over the years, the term has been used in all these ways.

In the 1970s, "food security" was seen mostly in terms of food supply and sufficiency at the global and national level. Since then, there have been two main shifts in the way the term is used: first, to focus on *access* to food, the ability to acquire food, as well as on supply; and, secondly, to worry about the food security of households and individuals, as well as national food security.

These shifts have their roots in nutritional analyses of the 1970s and in Amartya Sen's work on famines, first published in 1981.[1] Sen introduced the concept of "food entitlements," arguing that people go hungry not necessarily because there is a decline in food availability, but rather because they lose "entitlement," that is, the ability to acquire food — whether by production, purchase, exchange or gift. For example, unemployment may cause individuals problems in acquiring food, even when the warehouses are full and the markets well-supplied. Food availability, in short, is a necessary condition for everyone to be well fed, but is not sufficient on its own.

These shifts in emphasis are reflected in current definitions of food security. Thus the UN Food and Agriculture Organization (FAO) defines food security as "ensuring that all people at all times have both physical and economic access to the basic food they need," and the World Bank defines it as "access by all people at all times to enough food for an active, healthy life." Other definitions stress even more the issue of individual perceptions, defining food security as "removing the fear that there will not be enough to eat."[2]

As individual, household and community food security have been studied in more detail, new linkages have become apparent between the way people manage their access to food and the way they manage the other components of their lives. "Food security" is only one aspect of "livelihood security." People need shelter, health care and basic education, as well as tools to earn a living and good relations with their neighbours. They will juggle opportunities and assets, including food, to achieve all of these. For example, when drought causes crops to fail, people may feel compelled to go hungry rather than sell the tools, seed or livestock they will need to rebuild their farms after the rains come again. Similarly, food may be distributed differently within the household, according to the varying needs or status of individual household members.

These ideas have contributed to a new framework for thinking about food security, with the emphasis on supporting the complex livelihood strategies of vulnerable households and people. Secure access to enough food is a key part of such strategies, but must be seen in the wider context. Individual perceptions are central: how to identify and weigh different livelihood and food security objectives can only be decided by those who are actually food insecure, or at least with their active participation. At the same time, national and regional issues remain important, since broader patterns of food production and distribution can have a profound impact on what is achievable at the local level.

II. Food insecurity: who, where, why?

The usual way to illustrate problems of food insecurity is to start with national food production and self-sufficiency and then move to household and individual data. The new way of looking at food security suggests reversing this order, to start with *people* vulnerable to a lack of food.

Many indicators are used to identify vulnerable groups at the local level. Early warning systems commonly assemble data on production, incomes, assets, coping strategies and community support mechanisms. It is another matter to compile national and regional figures, but some estimates do exist.

The World Hunger programme at Brown University in the US,

1. *Amartya K. Sen*, Poverty and Famines: An Essay on Entitlement and Deprivation *(Oxford: Clarendon Press, 1981). See also: J. Drèze and Amartya Sen*, Hunger and Public Action *(Oxford: World Institute of Development Economics Research, 1989).*

2. *Simon Maxwell (ed), "Food Security in Developing Countries,"* IDS Bulletin, *Institute of Development Studies, University of Sussex, Vol. 21, No. 3, July 1990. See also: S. Maxwell and M. Smith*, Household Food Security: A Technical Review *(New York: UNICEF; Rome: IFAD, 1992).*

bringing together and updating FAO and World Bank data, has estimated that in sub-Saharan Africa some 235 million people, or 44 per cent of the region's total population, lived in households suffering from some level of food deprivation in 1989. Of that number, as many as 140 million people, or 26 per cent of the total sub-Saharan population, consumed insufficient dietary energy to permit minimal adult activity and healthy child growth. Another 95 million people, or 18 per cent of the population, consumed insufficient energy to permit a full adult work load.

These are astonishing figures, but they may actually underestimate the problem, since many more people are at risk of falling below these thresholds than are actually counted as being food poor at any one time. With irrigation rare and expensive, African agriculture is highly vulnerable to climatic variation. A year of good harvests, with improved access to food for many poor households, may be followed the next year by poor rains and a sharp deterioration in food supplies.

UN data on growth failure among children under five confirms the severity of the problem. Such data must be interpreted with care. Faltering growth has multiple causes, of which lack of food is only one; disease and child care problems can also be important factors. Furthermore, data on child growth can sometimes reflect past undernutrition rather than current problems. Nevertheless, data on seriously underweight children show that the percentage has increased slightly in sub-Saharan Africa, while in the rest of the developing world it has declined (see graph, page 2). The numbers of undernourished children in the region rose from 18 million in 1975 to an estimated 30 million in 1990.

Other data underline the extent of nutritional deficiency in sub-Saharan Africa. It is estimated that 15 per cent of babies are born underweight, 20 per cent of the total population is anaemic and 8 per cent suffers from iodine deficiency. Many of these statistics also reflect the especially severe nutritional and other stresses faced by women.

Who are the food insecure?

Statistical sources are not yet very helpful for describing the socio-economic characteristics of the food insecure. However, community studies and new methods of rapid and participatory rural appraisal help to complete the picture. In Africa, the food insecure fall into five main categories:

- Families that are poor in assets and productive resources, but live in surplus agricultural areas;
- The resource-poor, but also others, in drought-prone or other marginal areas;
- Poor pastoralists;
- The urban poor;
- Refugees, displaced persons and others affected by war.

Enhanced food production: an African priority

Food security has long been a highly charged issue in Africa. For the 235 million Africans who suffer food deprivation — and the millions stricken by recurrent famine — it is literally a matter of life and death. Why, many Africans ask, should the continent not be able to grow enough food to feed its own people? Until recent decades, Africa *was* self-sufficient in food production, analysts point out. Most Africans still live on the land and grow their own food, and Africa has considerable agricultural potential.

In seeking to bridge Africa's food gap, there has been a strong emphasis by African governments on achieving greater self-sufficiency in domestic food production. This has been considered vital not only for food security, but also as a step towards economic self-reliance and greater political independence. Against this view, some have argued that many African countries would be better off concentrating on their commodity export sectors, and then buying what food they need on the world market with the additional export earnings.

The Lagos Plan of Action, the economic blueprint for the continent's development adopted by the Organization of African Unity (OAU) in 1980, cited food security as one of its foremost priorities, arguing in particular that greater resources needed to be channelled to agricultural production in order to "lay the foundations for the achievement of self-sufficiency in cereals and in livestock and fish production." The African Priority Programme for Economic Recovery (APPER) adopted by the OAU in 1985 urged African governments to devote up to 25 per cent of central budgets to agriculture.

Proponents of food self-sufficiency have suggested a variety of special price incentives and credit facilities. Measures have frequently been promoted to encourage food producers with subsidized agricultural inputs and tariff protection against cheap food imports, although such policies have increasingly run up against the trade liberalization and fiscal austerity demanded by structural adjustment programmes.

Even the staunchest advocates of food self-sufficiency, however, have acknowledged that this may not be possible for some African countries. This has led to a greater emphasis on enhancing food self-sufficiency on a regional basis, so that deficit countries can obtain more food from neighbouring surplus producers. The treaty for an African Economic Community, adopted by the OAU in June 1991, calls for improving intra-African trade in food and for greater cooperation among African states to increase production and productivity in agriculture.

In recent years, there has been a growing appreciation within Africa that food imports and food aid can — if handled properly — also make significant contributions toward food security for Africa's people. But, many believe, these can only play a complementary role: the most secure long-term solution would be a greatly strengthened agricultural sector, capable of providing adequate incomes for households and foreign earnings for national economies, as well as more of the food that Africa so desperately needs. **— Ernest Harsch**

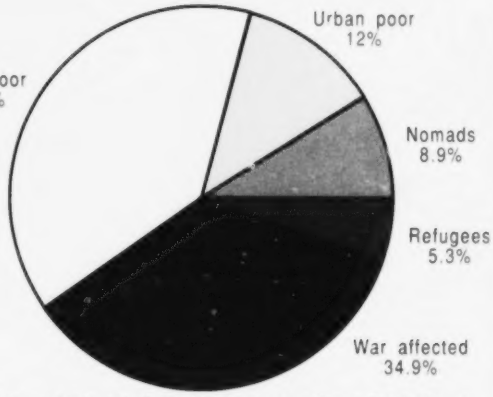
The conventional wisdom has been that the first two categories — small farmers and their families — comprise the largest groups, and this is probably still true for Africa as a whole. However, in many countries the conventional wisdom no longer holds, especially where war and related factors are the main cause of food insecurity, often producing large urban concentrations of displaced. In general, the urban poor, landless people, female-headed households and, in some areas, the elderly, feature with increasing prominence among the food insecure.

To cite one example, in the region of the Inter-Governmental Authority for Drought and Development (see graph below), some 45 million people, or close to half the population, were estimated in 1990 to be subject to food insecurity. The majority were the rural poor and those affected by war, concentrated in Ethiopia and Sudan.

What causes food insecurity?

In examining the causes of food insecurity in Africa, it is useful to distinguish between long-term trends, which affect the vulnerability of individuals, households and nations, and sudden shocks, which tip food systems into crisis. Slow agricultural growth, increasing income inequality, rapid population growth and urbanization fall into the first category. War, drought and refugees fall into the second. Poor policies, by either governments or donor agencies, may fall into either category.

Food insecurity in the IGADD region, 1990*



* Intergovernmental Authority for Drought and Development: Djibouti, Ethiopia, Kenya, Somalia, Sudan and Uganda
Source: Institute of Development Studies data

Some factors are internal to Africa, others originate outside the continent. Prof. Hans Singer, of the Institute of Development Studies in the UK, has written of the "quadruple tax" on developing countries in the 1980s, caused by low growth rates in developed countries, declining terms of trade, high interest rates and large debt payments. Together, he estimates, these may have reduced retained export earnings by more than half, significantly weakening self-reliance in developing countries.

Overall, the greatest long-term cause of food insecurity has been poor agricultural performance. In Africa as a whole, agriculture contributes roughly 20 per cent of the gross domestic product (GDP) and employs 65 per cent of the labour force. For sub-Saharan Africa alone, the figures are 30 per cent and 70 per cent respectively.

Contrary to popular view, agricultural and food production have both increased in Africa since 1970, and in fact at about the same rate as the rest of the world (see graph, page 6). However, unlike the rest of the world, production has risen more slowly than population. The result has been a sustained decline in agricultural production per capita, with Africa's per capita food production falling at a comparable rate. While world agricultural and food production per capita increased some 10 per cent over two decades, in Africa they fell by about 15 per cent, from a level that was barely in balance to begin with. Food self-sufficiency has declined to under 90 per cent, and import and aid dependence have increased. Food imports per head have had to rise to maintain consumption, by some 60 per cent over two decades, although with some decline in the 1980s (see graph, page 1).

Future prospects are no more rosy. Even on the most favourable assumptions about food production growth and a declining rate of population increase, World Bank projections show sub-Saharan Africa's food import needs doubling by 2010. Other estimates suggest that the most likely scenario is for food imports to double during the 1990s.

Things are not all bleak, however. In general, food availability has increased, thanks in part to higher food imports, including food aid. Overall calorie availability in Africa is higher than in 1961, though below the world average and way behind the figure for North America (see graph, page 12).

Of course, an analysis of Africa-wide production trends tells only part of the story. Some countries have performed notably better than the average, others very much worse, for a variety of reasons: agricultural policies, the extent of rainfall, national or regional instability. Kenya, Malawi and Cameroon are examples of countries which had high growth rates of agricultural GDP in both the 1970s and the 1980s; Ethiopia, Mozambique and Uganda are examples of countries which did badly in both periods.

Furthermore, long-term trends can obscure the problem of year-to-year variability, which causes countries to see-saw from years of plenty to years of famine. Inter-annual fluctuations, sharper in Africa than in other regions, are often (though not always) associated with drought. In Sudan, for example, between 1983 and 1987 the annual growth rate in agricultural GDP varied from -23.6 per cent to +28 per cent, causing severe instability in all sectors of the economy.

In 1992, some countries, especially in the Sahel, have had good harvests. Many others, however, face food problems on an unprecedented scale. Drought is the major immediate cause of the alarming level of food insecurity, especially in Southern Africa; but its effects have been exacerbated in a number of countries, by

war, refugee movements and the underlying economic and environmental fragility of the countries and communities most severely affected. Mozambique is an extreme case. At the national level, many countries entered the 1992 crisis with lower per capita incomes, smaller foreign exchange reserves and smaller food stocks than was the case during previous droughts. At the household level, too, the resilience of food production and livelihood systems has been undermined, in many cases, by years of drought, leading to the depletion of family assets and the erosion of community social security structures.

III. Food security policy: What have we learned?

Food security has been on the agenda of African governments since the 1970s, but with varying prominence. Recurrent famines from the mid-1980s helped make food and nutrition dominant issues. The UN's International Development Strategy, adopted in 1990, ranked the eradication of hunger first among its "priority aspects of development" and highlighted four specific goals: the elimination of starvation and death caused by famine, a substantial reduction in malnutrition and mortality among children, a tangible reduction of chronic hunger and the elimination of major nutritional diseases. These goals also featured in the 1990 World Summit for Children, initiated by the UN Children's Fund (UNICEF), and are expected to figure prominently at the International Conference on Nutrition to be held in December 1992.

Surprisingly, food security has not featured so prominently in the UN New Agenda for the Development of Africa in the 1990s (UN-NADAF), adopted by the General Assembly in December 1991. Its targets focus more on the desired overall level of growth (6 per cent annually in real terms), and on the attendant need for more development assistance and debt relief. However, food security and food self-reliance are cited as important sectoral objectives.

This makes clear that food security must be placed in a context where other issues also compete for attention. For most of the 1980s, structural adjustment became the priority for many African governments. This had direct and sometimes contradictory consequences for food security, through changes in agricultural prices, the reduction of state intervention in the market and the reduction or elimination of subsidies to consumers. Despite the potential for long-term gains, the immediate impact of structural adjustment was often to increase the food insecurity of vulnerable groups.

At the start of the 1990s, concerns about poverty and human development again became more prominent. The new human development framework emphasized a three-pronged approach: labour-intensive growth, in order to provide the poor with higher incomes; improved social services for the poor, particularly education and health; and, social security safety nets to prevent destitution. Democratization and improved governance have also become important themes. This new approach appears to offer greater consistency with food security objectives.

In its most immediate sense, food security policy deals only with the production, marketing and consumption of food. Yet it clearly reflects wider shifts in development thinking. These have brought greater attention to fiscal constraints, a reduction (sometimes too enthusiastic) in the role of the state, a search for new ways to target social-welfare benefits and the identification of new roles for voluntary and community organizations. Africa is a heterogeneous continent, but within this general framework many general lessons can be drawn.

There is a new framework for thinking about food security, with the emphasis on supporting the complex livelihood strategies of vulnerable households and people.

The primacy of growth

The first main lesson is the importance of economic growth — agricultural growth in particular. Poor people need secure and sustainable livelihoods, with adequate incomes and reasonable buffers against destitution. Poor nations need buoyant economies and adequate foreign earnings, in order to provide jobs, acquire agricultural inputs and, where necessary, purchase food.

The scale of poverty in Africa underscores the need for faster growth. The table on page 7 provides estimates of the magnitude and depth of poverty in Africa and the developing world in 1985-89, for two different poverty lines. In 1985, 49.4 per cent of sub-Saharan Africa's population, or 191 million people, were "poor." By 1989, the proportion had risen to 52 per cent and the number to 228 million (strikingly close to the figure, cited earlier, of 235 million people estimated to suffer from food deprivation). For those below the lower poverty threshold, the trend is similar: the proportion rose slightly and the number, substantially.

Faster economic growth, especially in sub-Saharan Africa, means growth in agriculture — to provide food, jobs, savings and markets for goods from the industrial sector. In 1980, the Organization of African Unity's Lagos Plan of Action called for an annual agricultural growth rate of 4 per cent through the 1980s. This was not achieved, but the target is still valid for the 1990s. The UN-NADAF stresses that agricultural and rural development will require better policies, enhanced productivity, improved distribution mechanisms, reliable market schemes and credit systems, and adequate storage facilities.

However, growth by itself may not be enough to enhance food security. There have been too many cases where national economies have grown, but with no real material benefit to the poorest groups. Most food insecure people live in resource-poor areas, which may be neglected if national growth strategies

favour well-watered regions with more resources and better infrastructure. Furthermore, some absolutely poor households, which consist primarily of elderly or destitute individuals, will not be helped by growth. And, importantly, labour-intensive strategies may be inappropriate for households suffering a labour shortage, for example female-headed households or those farming in areas where land is not scarce.

Consequently, successful agricultural growth strategies should lay particular emphasis on generating jobs and incomes for the poorest groups. This will usually mean investing most resources in small-scale agriculture, rather than in state farms or large, commercial enterprises. There may be a short-term trade-off between higher incomes for the poor and marketed or exportable surplus for the country as a whole, but the growth linkages are likely to be higher in small-scale agriculture, leading to faster growth in the long run.

Even poverty-focused growth may not be a sufficient condition for universal food security in Africa, however. The problem of resource-poor and often environmentally degraded areas is particularly acute, for example in the Sahel and the highlands of Ethiopia. There, a variety of strategies may be needed. These could include the promotion of short-term or even permanent migration to more favoured regions, as well as the development of new ways to generate growth in resource-poor areas, for example through micro-irrigation or soil conservation and reforestation. Such projects often have a long pay-back period and a low rate of return. But the environmental benefits are large and, if the projects are successful, there may be significant savings in famine relief.

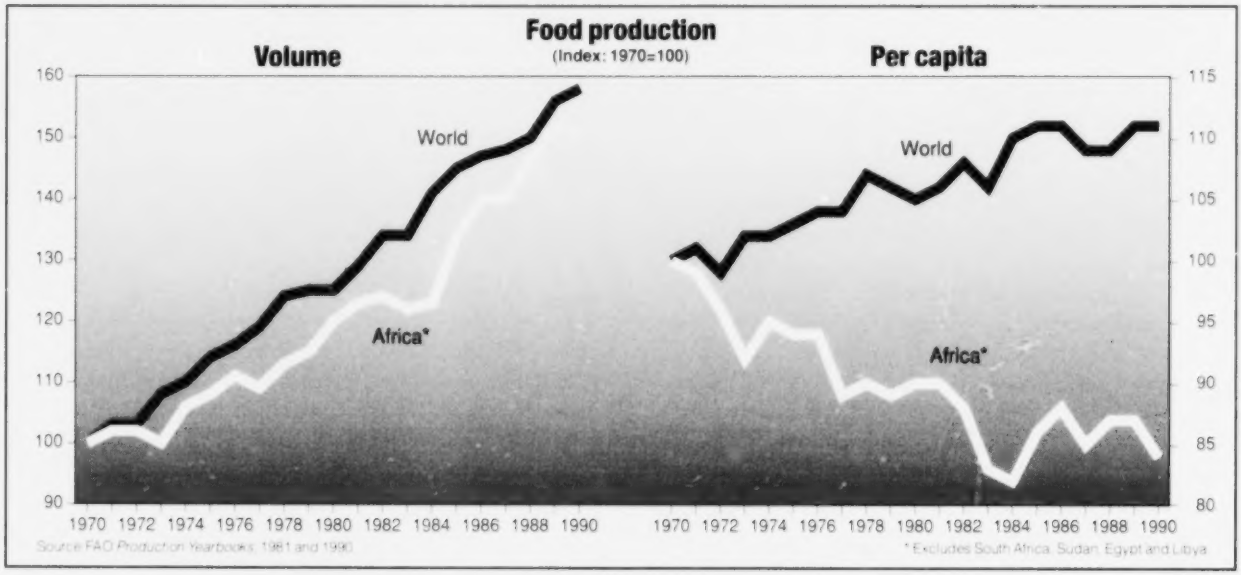
The constraints to greater agricultural growth in Africa have been debated at length. For much of the 1980s, policy concentrated almost exclusively on "getting the prices right": increasing prices paid to farmers by correcting exchange rate distortions, reducing taxes and improving the efficiency of marketing organizations. In the 1990s, a more rounded approach is being developed for Africa, one which recognizes the importance of "non-price constraints" such as infrastructure, technology, credit and marketing. In these areas, the state has a very important role to play; "state compression," it is now clear, can be taken too far. African advocacy, not least by the UN Economic Commission for Africa, has played an important part in this change of emphasis.

Balancing food and cash crops

Although there is no debate about the primary necessity of agricultural growth in Africa, there is continuing debate about whether growth should concentrate on food production and self-sufficiency or favour cash crops for export (see box, page 3).

Actual experience tends to support a balanced approach, and in so doing explodes a number of myths about cash crops in Africa.

Surprisingly, food and cash crops are not necessarily antagonistic. Data from the International Food Policy Research Institute (IFPRI) in Washington show that "most [developing] countries either manage a combination of growth in both cash cropping and food production or fail to manage either."[3] This is mainly because good agricultural policy boosts production across the board. Also, food crops are often sold as cash crops by farmers and even by countries (sorghum from Sudan, white maize from Zimbabwe).



3. J. Von Braun, and E. Kennedy, *"Commercialisation of Subsistence Agriculture: Income and Nutritional Effects in Developing Countries,"* Working Papers on Commercialisation of Agriculture and Nutrition, No. 1 (*Washington: International Food Policy Research Institute, 1986*), p. 2. *See also:* Von Braun et al, Improving Food Security of the Poor: Concept, Policy and Programmes (*Washington: International Food Policy Research Institute, 1992*).

In addition, a healthy cash crop sector generates foreign exchange that may be used to buy inputs for food crop production. Export crops like coffee or tea have a value per hectare up to ten times that of basic staples like maize and can therefore generate higher incomes, especially where land is scarce. This can benefit the food entitlements not only of farmers, but also of labourers and those dependent on related non-farm sectors. Although critics of cash crops often associate them with large farms or estates, and hence with worsening income distribution, cash crops have been grown successfully on small farms in some African countries (such as tea in Kenya), using labour-intensive methods.

At the household level, research by IFPRI has confirmed that the commercialization of agriculture through cash cropping is associated with increased income, increased expenditure on food and improved nutrition. The nutritional impact is greatest if a cash crop is also a food crop, has several outlets to spread risk, a short maturation period, is grown by women and is employment-intensive.

Despite these advantages, cash crops are a poor option where they are associated with worsening asset and income distribution. They are also a poor choice where there is no long-term comparative advantage for a particular crop. If too many countries try to expand exports of a given commodity — as has happened for cocoa, coffee and some of Africa's other key exports — then world markets may become glutted and the price may fall: the so-called "fallacy of composition."

It follows that cash cropping can benefit food security in Africa if the appropriate policies are adopted. Three main conditions must be met:

- Countries should focus on cash crops which appear to offer a secure future. However, predicting comparative advantage is difficult and cash crop markets are risky, so sensible policies will stress commodity diversification.
- African countries should adopt policies which maximize the benefit of cash cropping to the poor and food insecure: by avoiding biases toward capital intensity and large farm production and in general concentrating resources on small farms; controlling profit repatriation; avoiding diversion to luxury consumption; and maximizing production linkages.
- Finally, efficient food systems are also needed, to produce or import, store and distribute food, at reasonable prices, to all parts of the country in all seasons and in all years. Food entitlement is worthless without food availability.

A new role for the state in food marketing

Efficient food marketing assumes ever-increasing importance as Africans become increasingly dependent on food markets, whether national or international. They now typically rely on markets for 25-50 per cent of their consumption of cereals, though less for roots and tubers and other basic staples. In drought years, efficient food marketing is even more of a priority.

Views differ, however, on the practicalities. Should the state control the marketing of food staples, especially food grains? Should it hold large buffer stocks? If not, how can an appropriate balance be achieved between the state and the private sector?

Poverty in the developing world

	Sub-Saharan Africa		All developing countries	
	1985	1989	1985	1989
Higher poverty line				
Number of poor (mn)	191	228	1049	1131
% of population	**49.4**	**52.0**	**30.4**	**30.3**
Lower poverty line				
Number of poor (mn)	126	153	605	654
% of population	**32.5**	**34.9**	**17.6**	**17.5**

Source: World Bank

Many international aid agencies put forward three essentially free-market propositions, although all are difficult to apply in Africa and most are unpopular. They argue, firstly, that public sector intervention in cereal and other markets should be kept to a minimum, giving way to private traders, who are expected to respond more quickly and efficiently to changes in supply and demand. Secondly, price stabilization suppresses vital price signals to traders; therefore, excessive price stabilization should be discouraged and food stocks kept to the minimum required for emergency relief. Thirdly, inter-annual fluctuations should be handled largely by international trade, rather than by buffer stocks, so as to save on the high costs of storing, maintaining, handling and administering bulky and perishable food stocks.

Small farmers and their families comprise the largest groups among the food insecure, but the urban poor, landless people, female-headed households, the elderly and those affected by war feature with increasing prominence.

From these propositions flows a particular model of food marketing in Africa. In theory, a flourishing trading sector acquires surpluses, stores them over seasons and perhaps years and distributes food from surplus to deficit regions. This is expected to be done efficiently, competitively and without excess profit, so that price fluctuations remain within the limits imposed by international markets, adjusted for transport and other trading costs within the country. The role of the government is seen as

policing the system, paying for infrastructure and maintaining a minimum food reserve, sufficient to cover needs in poor years until imports can be arranged. This model is attractive in theory and is consistent with structural adjustment programmes across the continent. Yet, as with other aspects of structural adjustment, implementation is more difficult than theory would suggest.

Private food marketing systems in Africa are often weak, under-resourced, averse to risk and especially deficient in precisely the marginal, food-deficit areas where food insecurity is most severe. The instability of food production imposes additional strains. Many regions veer between deficit and surplus, bringing large swings in prices and in volumes of food to be transported. These problems are worse in remote or land-locked regions, where transport costs are high and the gap between export and import prices is large. Western Sudan and Chad are both examples. War makes things even worse, often rendering private trade impossible.

moment or after. Some have cited Zimbabwe in 1992 as an object-lesson in the dangers of excessive liberalization, where a deliberate running-down of food stocks under the structural adjustment programme is said greatly to have increased the country's vulnerability to the current drought.

Some might be tempted to abandon liberalization entirely, but that would be short-sighted. Even a fully-managed cereal sector would find it difficult and prohibitively expensive to insure against exceptional circumstances like the "once in a century" drought of 1992. In any case, everyone, including neo-liberal market advocates, agrees on the need for large enough private or government stocks to tide countries over until imports can be arranged and financed.

State efforts remain important. They should be directed towards carefully phased liberalization supported by new legislation to govern markets; investment in market, equipment and credit for traders; better information on prices and markets; easy access to

Better famine preparedness and response

Famine is the most acute form of food insecurity, associated not just with an extreme collapse of food entitlements, but often also with mass migration and the collapse of social organization. Since the 1970s, millions of Africans have experienced famine and hundreds of thousands have died. Drought has often been the obvious cause, tipping already vulnerable food systems into crisis, but in many countries war has also been a key factor.

In the 1970s, it was assumed that food shortage was the main cause of death and that those with least access to food, the poorest, would be most vulnerable. Recent work reveals a more complicated picture.

Famine is not an event but a process, to which people respond by reducing asset holdings, changing activity patterns and drawing on common resources and community support systems. Such coping strategies can both cushion the impact of famine in the short term and disguise its severity, so that social collapse, when it comes, can be sudden.

Since reduced food consumption can be an early manifestation of collapsing entitlements, clinical signs of undernutrition, in both adults and children, may provide early indicators of livelihood stress.

Disease plays a pre-eminent role in causing high death rates during famine, mainly because people congregate in camps or urban settlements, where poor water and over-crowding lead to higher risk of disease, especially intestinal infections.

Taking into account this more complex picture of famine, early warning systems have evolved, usually much faster than the capacity to respond. The best, for example in Mali and northern Kenya, are locally based and track broad patterns of livelihood rather than simply the price and availability of food. They are integrated into a hierarchy of information systems, stretching through the national level to international systems like the FAO's Global Information and Early Warning System. A free press and active civil organizations can also contribute to effective early warning.

In the 1980s, responses to famine were often delayed by national unpreparedness and sometimes lack of concern, as well as by political and institutional delays internationally. In the 1990s, many of the same constraints apply, but the solutions are more apparent. Disaster preparedness is the key, involving early decisions on when to import food, small locally-based stocks of food for relief distribution, relief works programmes that can be activated quickly, special programmes for vulnerable group feeding and early water and health interventions.

These lessons have brought new initiatives in some African countries: the use of commercial food imports to stabilize prices, as in Kenya; food or cash for work, as in Ethiopia, Cape Verde or Botswana; local pre-planning by government and non-governmental organizations, as in parts of the Sahel and the Horn of Africa; and explicit disaster prevention and preparedness planning, as, for example, in Ethiopia. Nevertheless, as the experience of the 1992 famines shows, much remains to be done.

In such circumstances, the consequences of liberalization can be severe. The consumer loses the security of a managed system, however expensively run, and confronts instead the uncertainty of an imperfect market characterized by large price fluctuations and irregular supplies. In years of severe drought, the problems reach crisis proportions: food prices increase dramatically just when nominal cash incomes decline because of shrinking employment or poor harvests; food disappears from the market; and international relief supplies fail to appear until the last

foreign exchange for traders importing food in poor years; and decentralized food security stocks under local government control. Grain marketing parastatals should act as buyers and sellers of last resort, gradually withdrawing as the private sector expands.

More effective and efficient safety nets

Social welfare transfers and safety nets have become a prominent feature of the new anti-poverty agenda. But these have already had a long history in food security policy in Africa, partly through

famine relief (see box, page 8), but also in nutrition, food subsidy and other income transfer programmes.

The range of food security interventions in Africa is enormous, from national subsidies on staple commodities, through targeted food and nutrition programmes, to emergency relief. Their cost is substantial. A recent estimate in Mozambique put the fiscal cost of direct food interventions alone at over 10 per cent of GDP. In Egypt, the subsidy on bread has cost up to 20 per cent of government expenditure and 7 per cent of GDP. The full economic cost can be much greater when price distortions and efficiency losses are taken into account.

In principle, food security interventions should be targeted towards the poorest and most food insecure, particularly those who do not benefit from economic growth: households short of labour (especially those headed by women), vulnerable groups like pregnant and lactating women, children, the elderly, the disabled and, often, those living in marginal areas. But in practice, many national food systems in Africa also benefit the rich and the urban, rather than the poor, the rural and the marginalized, and do so through implicit, hidden taxes and subsidies on different groups. This has increased the political support for safety nets in Africa, but at the same time also their cost. Yet better targeting is difficult, both because of political pressure and the heavy demands that targeting puts on local administration.

In seeking a way forward, a high priority should be put on limiting possible conflicts between social security and growth, a danger which always exists when apparently unproductive social expenditures are allowed to spiral at the expense of productive investment. This can be done by cutting the fiscal and economic costs of safety nets, but also by developing social security interventions which have a development pay-off.

Public works schemes are a good example. They simultaneously provide an income transfer to poor employees while contributing to development through tree planting, soil-erosion control or road building. Experience in Ethiopia, Botswana, Cape Verde, Kenya and other African countries shows that public works can have a high benefit-cost ratio. Another example is nutrition supplementation, aimed at preventing poor rates of physical growth among young children. The development benefit here comes from better performance in school, better health and higher productivity in adult life. In both these cases, social welfare transfers can be justified in themselves on moral grounds — but become even more attractive and therefore more sustainable if economic development benefits can also be secured.

Even if economic benefits can be secured, there remains a strong case for better targeting of food security interventions in Africa, both to limit the fiscal cost and to ensure that those who most need help actually benefit. Work by IFPRI has shown that targeting works best when five conditions are met: the target group is small relative to the population; a targeted intervention can be implemented with little leakage to non-target groups; the extra purchasing power delivered to households actually results in increased consumption by vulnerable groups; all costs are explicit and fully taken into account; and there is political support for redistribution, so that the cost can be offset by taxing the rich.

These conditions are rarely met in Africa — the large wheat subsidy in Egypt is often cited as meeting almost none of them — but targeting *can* be improved, in ways which avoid impractical and unsustainable administrative costs. Geographic targeting is one possibility, in which benefits are restricted to specific locations with high concentrations of vulnerable groups. Another is restricting subsidies to commodities that are purchased disproportionately by the poor.

Despite the potential for long-term gains, the immediate impact of structural adjustment was often to increase the food insecurity of vulnerable groups.

Finally, community involvement in social security safety nets needs to be encouraged more. Governments have yet to exploit the full potential of community-based and voluntary organizations, which can provide locally-based and responsive social security, often with greater effectiveness and fewer demands on government. This potential should not be exaggerated. Traditional mechanisms used by African communities to cope with food crises have declined with the expansion of market relations. Nevertheless, some still function and can be further developed, along with other forms of community action.

Such an approach can bring complementarities between state and community responses and increase the effectiveness of government schemes. The Iringa nutrition programme in Tanzania is a good example, in which community mobilization and involvement in assessment and analysis helped reduce severe malnutrition in chiidren by two-thirds between 1984 and 1988.

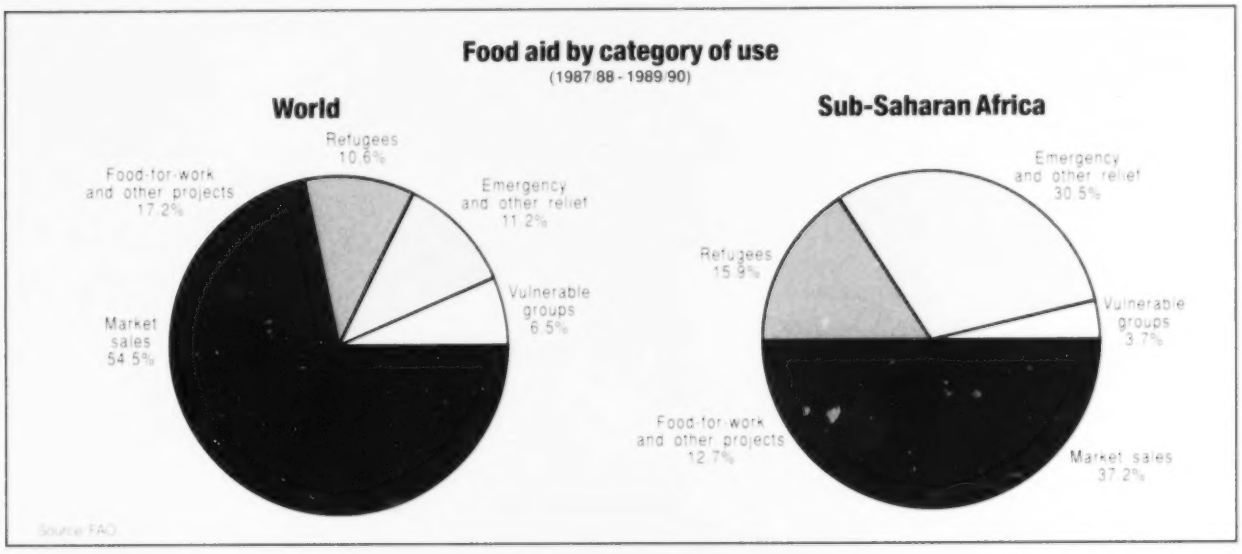
New roles for food aid

Food aid accounts for less than 10 per cent of all aid to sub-Saharan Africa, but still provides a net transfer of about $1 bn per year, equivalent to the total net transfers to the region by the World Bank and its soft-loan arm, the International Development Association. Furthermore, food aid has an especially close association with food security. It makes a large contribution (over 20 per cent) to food imports, supports many food-for-work and supplementary feeding programmes and, of course, plays a highly visible and crucial role in famine relief.

Nearly 40 per cent of food aid is sold on the market, nearly a third used for emergency relief and the balance used for refugee feeding, food-for-work and supplementary feeding. Compared to world food aid, emergency and refugee feeding are dispropor-

tionately important (see graph below).

Food aid remains a controversial form of aid in Africa. Critics charge that it encourages further import dependency, both by undermining incentives to local production (through lowering domestic market food prices) and by biasing tastes towards imported commodities, like wheat. They also argue that food aid is an unreliable aid resource, dependent on the production of surpluses in developed countries and often used as a political weapon by donors.



Proponents of food aid reject these criticisms. Food aid, they maintain, is an *additional* resource; cuts in food aid would not translate into more financial aid. If managed properly, food aid can also have a positive impact on overall economic growth, as well as on the incomes and nutritional status of the poorest groups. This is because food aid sold on the market contributes to the balance of payments and generates local currency "counterpart funds" for the recipient government, which can spend it for poverty reduction and food security.

Experience in Africa and elsewhere shows that disincentive effects on local agriculture may indeed occur; Somalia and Sudan have often been cited as examples. However, such negative effects can be avoided — as has been the case in Rwanda and Kenya, for example — especially if new programmes funded in the budget increase the demand for food, for example by increasing employment or subsidizing food for poor consumers. Donors and African governments can further minimize the disincentive of lower domestic food prices by planning the arrival, distribution and sale of food aid so that it does not overload Africa's fragile markets, especially at harvest time.

Better management of counterpart funds in Africa is key to improving the development effectiveness of food aid sold on local markets. In 1991, the Organization for Economic Cooperation and Development, the World Bank's Special Programme of Assistance (SPA), the US and the European Community all approved new guidelines on counterpart funds, emphasizing the need to improve accounting procedures, avoid hidden subsidies to consumers and ensure that food aid and other counterpart funds are disbursed within an agreed policy and budgetary framework.

More timely delivery of food aid is also essential. This is especially vital for emergency and refugee use, which have grown in importance, to the point where they together now absorb nearly half of all food aid to Africa. In 1989, a special window was established by the UN's World Food Programme for protracted refugee operations. Despite their undoubted success in saving lives, emergency and refugee operations have been bedevilled by shortages of food and delays in delivery, complicating the already very difficult logistic problems at country level.

Food aid delivery problems have been reduced to some extent by local purchases, swaps with locally produced commodities and "triangular transactions," involving purchases in neighbouring countries. In 1991, triangular transactions and local purchases amounted to over 800,000 tonnes of food, two-thirds of which were purchased in sub-Saharan Africa.

Nevertheless, emergency relief will continue to be ad hoc and unsatisfactory until disaster preparedness improves on both the donor and recipient sides. One way in which emergency food aid can be used to improve disaster preparedness is through public works programmes to develop infrastructure, such as access roads and earth dams.

Finally, there is a consensus among food aid agencies that there needs to be flexibility between food and cash in supporting individual poverty reduction and food security projects. In the past, most food aid for projects was disbursed directly in the form of food. Experiments in the 1980s have shown that cash is often preferable, for example where food is available in the local community and where transporting and distributing food aid to project sites is expensive.

All these changes in approach make food aid less controversial in Africa now than in the past. At the same time, it is recognized that given current trends, Africa's food import needs could double in the 1990s. With better food aid policies in place, and with severe limits on Africa's capacity to import such amounts on a commercial basis, there is a strong case for substantially increasing the amount of food aid provided to the continent.

IV. Food security planning

Faced with mounting food crises, there has been no shortage in Africa of new initiatives related to food security. These have ranged from the creation of new inter-governmental organizations, to institutional innovations such as the International Emergency Food Reserve or the FAO's Global Information and Early Warning System, to statements of intent, like the Food Aid Charter for the countries of the Sahel, adopted by donors and recipients in 1990. Of 350 inter-governmental organizations which exist today in Africa, over 100 deal directly or indirectly with food. Similarly, food issues have loomed large in more general policy statements, like the Lagos Plan of Action, UN Programme of Action for African Economic Recovery and Development and now the UN-NADAF.

Many national food security plans were prepared following the World Food Conference in 1974, but a new wave was launched by African governments in 1981 with the support of the European Community and later with the assistance of the World Bank and FAO. At least 14 countries in Africa are now receiving international assistance in the preparation of national food security plans. Food security is also high on the agenda in discussions of regional integration in West Africa, Southern Africa and the Horn. From this rich vein of experience, it is possible to mine many lessons about how food security planning can best be carried out.

First, the very idea of "planning" has more modest connotations now than in the heyday of large-scale, technocratic planning in the 1970s. This results partly from the greater emphasis on market mechanisms. It is also a consequence of the difficulties encountered in trying to plan many multi-sectoral and multi-disciplinary initiatives, like integrated rural development, which were often burdened by over-ambitious goals, inter-ministerial conflicts and unsustainable implementation structures dependent on foreign aid.

Although the state continues to have a key role to play, there is a shift under way from "blue-print" to "process" planning, emphasizing flexibility over targets, bottom-up initiatives over those from the top, gradual evolution over rigid master-plans and quick action over slow planning.

These changes are seen most clearly in Africa at the local level. Examples include general agricultural planning (the Agricultural Planning Unit in Darfur, Sudan; integrated rural development in Zambia), community-based nutrition planning (Iringa in Tanzania) and drought monitoring and relief (Turkana in Kenya). Many depend on long-term donor funding, but the approach is clear: seeking to build national food security policy on a foundation of strong, decentralized, community-based and well-funded local initiatives, which reflect the complexity of people's own food security strategies.

There is also the establishment of strategic food security planning units in African ministries of planning, with Ethiopia, Sudan and Mozambique as recent examples. These have been successful where they remain small, focused planning units and leave actual implementation to line ministries. They have been unsuccessful where they attempt to become super-ministries in their own right. Energetic advocacy of food security and multi-sectoral strategic planning, yes; integrated implementation, clearly no.

A similar lesson has been learned, sometimes painfully, by sub-regional organizations. Both the Inter-State Committee on Drought Control (CILSS) and the then Southern African Development Coordination Conference (SADCC) began with a strong project focus and with ambitious ideas for practical, regional collaboration, for example in the form of jointly-held buffer stocks. When these plans failed to mature, both organizations developed sub-regional "think-tanks" responsible primarily for information, research and institutional strengthening. The latest sub-regional plan, approved by IGADD in 1990, deliberately shies away from unrealistic attempts to harmonize policies or interventions across national borders.

There needs to be a balance between cash crops and food. If world prices are remunerative and sound agricultural policies ensure food availability as well, cash crops for export may offer a good route to greater and more stable food entitlements.

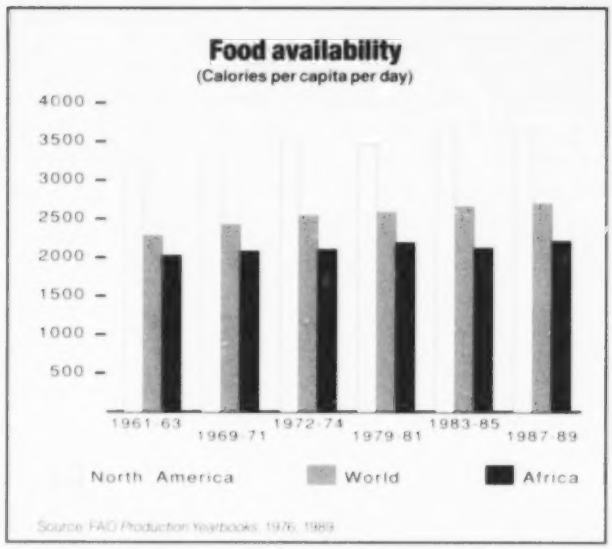
V. The future of food security

The dominant thinking about "food security" has come a long way in Africa since the 1970s. In the process, it has shed a good many firmly held opinions, even some prejudices, about what it is and how it can be achieved. Policy in the 1970s and for much of the 1980s concentrated on achieving national goals of food production and self-sufficiency, often with intense government involvement through grain marketing parastatals and, in some cases, state farms. Food security planning was to be run from the centre, with fixed goals and many multi-sectoral initiatives. Perhaps this is a caricature, though vestiges of the approach are still all too common in Africa today. It was probably not appropriate for Africa even in the 1970s; certainly, it is far from appropriate in the 1990s.

Food security policies for the 1990s need to begin with the

diversity and complexity of food insecurity as experienced by the food insecure themselves. The primary focus needs to be on **individuals and households** who lack, or fear they may lack, secure access to enough food at all times for an active, healthy life.

The **social composition** of the food insecure is changing fast. Small farmers were the original priority and probably still predominate. But poor pastoralists, the landless, members of female-headed households, the urban poor and those displaced by war are increasingly prominent. Specific policies and strategies need to take their different needs into account.



Peace is an essential pre-condition of food security in much of Africa. In the 1990s, unlike the 1970s, war is a major factor precipitating acute food insecurity: it was the immediate cause of famine in all the main affected countries in 1991 and in many of them in 1992.

Slow **growth in agricultural production** and very high variability from year to year are still the main underlying causes of food insecurity in Africa. Growth is therefore central, and the agricultural sector a priority for resources. But growth needs to be directed specifically to the employment and incomes of the poor and food insecure: small-scale, usually labour-intensive and with a special focus on resource-poor and marginal areas.

There also needs to be a **balance between cash crops and food**. If world prices are remunerative and sound policies ensure food availability as well, cash crops for export may offer a better route to greater and more stable food entitlement, both for individual households and for nations.

Liberalization of food markets in Africa is much less easy than free-market advocates imagine. But it is worth pursuing nonetheless, in phases and with strong government support as buyer and seller of last resort.

Food security policies should aim towards establishing **efficient and equitable food systems**, resilient in the face of drought or other shocks. They should provide secure safety nets against destitution, preferably in ways which simultaneously promote long-term development. There needs to be a greater appreciation of the value of **targeting**. Food security interventions generate a larger pay-off and are more cost-effective if they are targeted on the most food insecure, whether through geographical targeting, focusing on food consumed primarily by the poor or community management.

More **modest approaches to food security planning**, as a process and often with a strong local government component, are likely to be more successful than over-centralized, top-down models. Food security planning should foster data collection, planning and action with the communities on which people depend.

There is a new realization that famine can be prevented only by better **understanding of the complex famine process**, including by utilizing traditional and newly evolving household and community-based strategies for coping with food shortages, by tackling disease and by improving disaster preparedness. It is also important to make better use of early warning information, particularly for contingency planning.

Finally, better use can be made of **food aid**, especially through better management of counterpart funds, greater flexibility on monetization and greater integration between food aid and financial aid.

Taken together, these principles can provide a basis for action which moves beyond the desperate short-term approach of famine relief in Africa, to longer-term and more sustainable programmes which provide genuine food security. African people and governments can do a great deal to foster food security. But more aid will also be required from the rest of the world if food poverty is not to increase again in the coming decade. ■

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